

Winter

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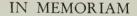
LIFE SCIENCES

YOSEMITE

OLUME XXXIX — NUMBER 6

JUNE 1960

SEP 2 3 1950



John D. Rockefeller, Jr. 1874 - 1960

"Truly, he was a guardian saint over these national treasures . . . Our nation is stronger because he was with us and the good he accomplished will never be lost."

CONRAD L. WIRTH
DIRECTOR
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—Interpretive sign in the Tuolumne Grove of Sequoias

yosemite

NATURE NOTES

Since 1922, the monthly publication of the National Park Service and the Yosemite Natural History Association in Yosemite National Park.

John C. Preston, Park Superintendent

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Robert F. Upton, Associate Park Naturalist

Paul F. McCrary, Assistant Park Naturalist

Herbert D. Cornell, Junior Park Naturalist

Keith A. Trexler, Park Naturalist Trainee

VOL. XXXIX

JUNE 1960

NO. 6

THE CASE OF THE CRIPPLED DEER

Lloyd W. Brubaker, Ranger-Naturalist

The face that was turned up to me ad eyes with tears very close to ne surface. There was a quality of nger there too. "Why don't you do amething about it? She was so weet, and she was hurt. She's out nere in the meadow," she said ointing.

The young visitor who had accostd me at the lodge had an urgent lea to help a limping deer in the leadow. Her parents stood back ith a sort of apologetic smile, but ome of the urgency had rubbed off a them too. I sat down on a bench and pushed my hat back. It was a ot day.

"Did she have a fawn?" I inquired. he did not. She wasn't bleeding ther. It looked like an old injury or father said. I nodded and thought is over. Terms like law of survival, nd balance of nature flitted through y mind. The sound of a speeding uto out on the roadway could be oard, and it fitted in somehow. But, is little girl was in no mood for a

lecture on nature's ways, but the lesson was here and it had to be taught.

"Supposing we go and catch that deer. We'd have to rope her like a cow and throw her on the ground and sit on her just to look at the injury. Suppose we had to break her lea again just to set it straight. Do you think she'd understand that we were trying to help and not be frightened nearly to death. Suppose too that she were going to have a fawn. Do you suppose that a crippled mother could care for her young as well as a healthy doe? How big would the hospital have to be to care for all of the injured and sick animals in Yosemite?" These questions caused her to think a moment. Her parents sensing the need for calmness sat down too and listened.

I spoke of the really great healer, Nature. How she carefully selected the mothers and the fathers of the forest. How she selected only the strongest and largest. How she se-

lected only those deer, squirrels, and jays who had the best to pass on to their children. What did she do with those who were slow, small, weak, and not desirable parents? Well, this is what we sometimes think of as the sad part. These weaker animals provide the necessary food for the covote, fox, puma, and bear. Mice that are weak or injured are food for the snake, just like the snake that is weak will fall prey to the hawk, and so on. In this way nature keeps the animals of the forest vigorous and strong. Our deer are sturdy, beautiful animals that make good parents. This is because nature selected only the best to be their parents. You have found one of her rejects. It's too bad for that deer - but, what else can nature do?

Yosemite is a place we can see nature at work. Yosemite is where nature can show us how she does things and not be bothered by the hand of man. Often when man thinks he is helping he really makes things worse simply because he doesn't understand how nature works. If we helped every sick and injured animal in the forest it wouldn't be too long before the surviving cripples would be so numerous that

they would eat the food that the healthy deer need, then the healthy would become ill and we would have nothing but second-rate deer. We would have many more deer to fees sorry for. Our animal hospital would have to be even larger.

The young visitor listened, her face became thoughtful. "She wanted to be helped. She limped over to me," she said, as if thinking outloud. nodded again and stood up.

"Yes, nature's laws seem hardwhen we think of one, or even dozen, crippled deer. But we must think of all of the deer. We must eventhink of the fawn that the cripple might have. It wouldn't be fair to lest that fawn have a mother that might be killed just a day or two after birth. It's better to leave the whole situation alone and let nature look after things. She really knows best."

As I walked away, through the little group that had collected, I heard remarks here and there. The terms "balance of nature", "survival of the fittest", and "mother nature knows best" could be heard. I grinned happily at the next passing visitor who grinned back. A naturalist certainly has his good days, sometimes.

CLOUDY DAY

Ted R. McVey, Ranger-Naturalist

Clouds all day overhead. The grey of the clouds blends with the canyor walls to produce one vast grey umbrella.

The sun finally began to poke holes in the tent above; seeking out the high peaks first.

Half Dome wears a crown of gold to stand out above all else.

ELDERBERRIES OF YOSEMITE

Robert W. Crippin, Ranger-Naturalist

In Yosemite National Park there rre two principal species of elderperry. They are the blue elderberry 'Sambucus mexicana) and the red el-Herberry (Sambucus melanocarba).

The blue elderberry grows as a bush or small tree. It varies in height rom 5 feet to 30 feet, depending upon environmental conditions. It renerally has a multiple trunk and a preading round crown. The plant stump sprouts readily.

In Yosemite the blue elderberry is ound in the upper sonoran and ransition zones. It is usually solitary among other trees on the valley loor or moist hillsides, as well as glong the edge of the streams. This ack of gregariousness is the more remarkable in that reproduction is amply provided.

The elderberry is a semi-deciduous ree which is not considered outstanding except when it is in flower or covered with its blue berries. It is densey foliaged with large green leaves in spring and summer. The leaves, silnouetted against the light tan bark, orm a study in contrasts. It is paricularly beautiful when its rounded dome is covered with great masses of flat-topped flower clusters that may measure six to twelve inches across. Each flower of the cluster is urn shaped and they are white or cream colored.

The plant is again attractive when t is covered by purplish-black beries covered with a chalky bloom. When the juicy berries are ripe it becomes a rendevous for the jays. obins, pigeons, and other birds.

The leaves are narrowly oblong, opposite and compound. They vary from five to eight inches long and are arranged in leaflets of five to nine leaves. The leaf edges are sharply and finely serrated. The foliage is dark green above and a paler green below. Some blue elderberries have smooth leaves and stems whereas others are slightly hairy or pubescent.

In late summer the plant is an unattractive, scraggly bush on account of its habit of dving back, and its thicket-like growth.

The wood is pithy, soft and was little valued by the white man. However, the Indians put it to many uses. The California Indians called it "the tree of music", for of it they made their flutes, and the flute was the instrument of the Indian when he went courting. This was the only true musical instrument made by the Indians of California. It was played by blowing across the edge of one end. The elder sticks for flutes were cut when green in early spring and left to dry with the leaves on the stem. Then four flute holes were bored with a red-hot stick, but at random so that no two flutes had the same scale!

Straight shoots of elderberry were also used for the shafts of arrows. The berries were prized in Indian cookery, and the brewed bark was used as a remedy for fever.

The red elderberry is between two and four feet high. It is plentiful at Tenaya Lake, Merced Lake and Washburn Lake. It is especially common on the margins of streams in Yosemite National Park at elevations of from 7000 to 10,500 feet.

It differs from the blue elderberry

in having dome-shaped flower clusters instead of flat-topped ones, and in having a red berry instead of a blue-black one. It is a thick spreading shrub and is usually from one to three feet high. The foliage is bright green and smooth.

The fragrant flower clusters are, as mentioned above, one to three inches

wide and bear cream-colored flowers. The fruit is about one-sixteenth of an inch in diameter and grouped in beautiful large red clusters.

The red elderberry was not used much by the Indians because of its inaccessability and in most cases is unknown to the white man for the same reason.

THE EVENING GROSBEAK

By Homer Crider

The past year seems to have been an auspicious year for birds of this species in the Cascades area below Yosemite Valley. Evening grosbeaks (Hesperiphona vespertina) appeared in June, then seemed to disappear during July, only to reappear again in August in accentuated numbers and with young birds in the flocks.

One attraction seems to be coffee berries on which they feed several times daily. The berry bushes around our home get extra water and consequently are of good size and evidently quite delectable. The fact that the best bushes grow within 12 feet of the house windows makes it easy and interesting to be an observer.

Evening grosbeaks are quite sociable and twitter constantly while feeding. They pull the berries from the bush and remove the skin and pulp by coming down with the edge of their beaks. This is quite a messy job and the under part of the bill has to be wiped against a limb from time

to time. With the pulp removed, they then crack the berries to get the kernel inside. Quite a bit of energy is required for this. They seem to roll the seed around and try successive positions before the chisel action of the beak finds the point of structural weakness in the seed.

The male bird makes it his business to see that the young birds get plenty. The young ones try to feed themselves, however, to a limited extent.

At one time the writer approached within 4 feet of a young bird before it flew. Just prior to this there were 7 in the flock, old and young.

A female tanager was seen hanging around the edge of the flock, but she was somewhat shy and apparently did not trust the grosbeaks to any great extent. She did not have the knack of handling seeds with the facility of the grosbeaks. The tanager prefers ripe berries while the grosbeaks go for the greener fruit.

OBSERVATIONS OF THE TAHOE CHIPMUNK

Howard H. Cofer, Ranger-Naturalist

While chipmunks are seen only infrequently in Yosemite Valley, they are present in large numbers and are seen often, since they are diurnal in nature, at elevations above the Valley rim.

The Tahoe Chipmunk, Eutamias speciesus frater (Allen), is the species found at Glacier Point, elevation 7214 feet, which is in the Canadian Life Zone. Its range also covers the Hudsonian Life Zone, since it is found up to over 10,000 feet. The Sierra Golden-Mantled Ground Squirrel also occurs at Glacier Point and most visitors refer to both animals as chipmunks. Both animals have stripes on the body but the stripes include the face in the chipmunk. Furthermore, the sharp pointed nose is not to be found in any ground squirrel.

The Tahoe Chipmunk is the only chipmunk found in Yosemite which habitually takes refuge well up in trees. It will often climb many feet above the ground at the first sign of danger. When an animal which has been frightened reaches a considerable distance above the ground, it will usually lie quietly on top of a branch while it peers down. It often does much running around in trees even when not frightened. The Tahoe Chipmunk is able to run up and down a smoothbarked tree with ease but seldom jumps from limb to limb, and then only for very short distances. There seems to be no reason as far as physical structure is concerned to prevent other species of chipmunks from climbing trees, in fact some do occasionally. The apparent preference for trees as a habitat by the Tahoe species may have come about

through age-long competition with other species for a favorable habitat.

Two chipmunks often engage in play-like activity which usually involves pursuit of one another. They may take them over and under logs through brush, over and around rocks, across open areas, and often around and up and down tree trunks. Once while sitting on a log observing their antics, one ran under my legs. The pursuing chipmunk stopped short and "froze" only a couple of feet away. It was impossible for me to be sure if the little animal was even breathing. When the observer could remain motionless no longer. the chipmunk "broke" and ran rapidly away. It is doubtful if this type of activity is related to courting behavior since it occurs at all seasons and young, immature individuals are also involved. It sometimes appears as though an adult were making an effort to get a younger individual to run by literally prodding it along.

The chipmunk has cheek pouches into which food is stuffed when food particles are taken rapidly. The particles can be placed in and removed from the pouches simply by using the muscles of the jaws. The pouches are also used to temporarily store and transport other items, such as material for nest construction. On several occasions chipmunks (whether the same one or different individuals. I do not know) were seen removing the wool nap from a carpetlike pad which was on the porch my cabin at Glacier Point. This pilfering sometimes occurred while I was only two or three feet away. The little chipmunk, with mo-





Naturalist canducted nature walk at Glacier Paint.

The areas administered by the National Park Service have been set aside to preserve a precious part of our national heritage. It is not always realized, however, that this beritage requires sympathetic study and presentation if it is to be of maximum benefit to the public. The interpretive service is designed to fulfill this need and to contribute to the national education and to the maintenance of confidence in the American way of living. This service may well be a potent force in maintaining national equilibrium in the trying times which appear to lie ahead.

A. E. Demaray Director, 1951 National Park Service

tions much like that of a sheep grazing, would jerk out the nap. After a considerable strip had been removed, it would hesitate and while sitting up, the wooly nap apparently was rolled into a ball. This adjustment was done rapidly by means of the front feet and then "automatically" placed in the pouches. The process was repeated several times before she (sex assumed) would scurry away and enter an opening at the base of a large white fir tree close by. It is assumed the material was used in preparation of a nest but it is doubtful if the nest in question was for the purpose of rearing young since the activity of "wool gathering" went on more or less all summer. I would like to insert in this account of the chipmunks an item which might indicate that the chipmunks and Golden-Mantled ground squirrels both have a little "pack rat" in them. One day in early August a Golden-Mantle was seen to make trips from the Mountain House

at Glacier Point to the rocks abortifty yards distant. These trips occurred at about fifteen minute interval throughout the day. On each trip ou a mass of insulation material aborthe size of a hen's egg was stickin out of its mouth. The amount transported during the day must have been considerable. The squirrel was seen on one day only.

On occasion, chipmunks were seen to gather seeds from the cottor heads of Senecio, Senecio lugery (Rich.), a member of the sunflowing family which grows in dry areas are stands from one to three feet tax. The base of the stem was grasper by the mouth, then the flower heads brought into reach as the chipmunt bent the plant over by working hyway from base to tip.

The visitor to Yosemite will fire added enjoyment if he will simple sit quietly in the woods and water these fascinating little animals carried on their activities in a natural setting.

PATIENCE

The giant redwood waits, Patience unrestrained, Patience for milleniums, Through frost and when it rained.

> Patience to grow inward, Patience to grow long, Great pillar of the forest, Of all the greatest song.

To glorify creation,
The booklets and the meads.
While rivers change their courses,
Sequoias cast their seeds.

Now, where a seed, its soul, By gentle breeze was sown Four thousand years it stood, And patiently has grown.

> —Alfred E. Brighton June 4, 1960

FOR OUR YOUNGER READERS

Ralph Frazier, Ranger Naturalist

In another issue of Yosemite Nature oftes we published an article writing just for the many young people our list of readers. We said that would talk to ranger-naturalists no know such things and ask them tell us how to continue our love for ture which may have been begun are in Yosemite.

Since you boys and girls love to atch birds and enjoy knowing them friends, we feel that you would e to know how to bring birds close vou. Each bird seems different m each other bird and you will t great joy from recognizing old ends as they return to you year er year. When I was a child I member how happy I was on cern spring mornings for three years a row. I would be greeted on the turn from afar off by a barn swalw whose leg I had splinted after unequal tussle between the beauul bird and an automobile. You ve missed a lot in life if you have t known an animal friend who isted you and looked to you for otection.

Let us say that you have been to semite and have so enjoyed the any kinds of birds you saw at you can hardly wait to continue ur contact with them. The firsting to do is make a bird feeding ation of a flat tray which can be tiled to a window sill. The window I next to where you eat breakfast ould probably be best. While you seating you can be watching the tics of your feathered friends. It ight be a good idea to attach anches and leaves to the shelf to take it look a little more natural.

Once the birds get used to coming to breakfast, a plain shelf would be alright. The next step would be to have mother get some suet from the grocery store. It is a form of fat which the birds love. Tie the suet to nearby trees. This will bring the birds to where they can spot the shelf. You can put some more of the suet on the shelf along with other things which birds eat. What do birds eat? They eat seeds, berries, and insects among other things. Such things as chicken feed, sunflower seeds, bread crumbs. meat scraps, and corn meal make good food for them. Of course, some birds feed on the ground and will not come up to your bird shelf. For such birds as quail spread a little corn around a nearby bush. Don't be discouraged if you don't get results right away. Quail frighten easily and have to get used to you before they will come close.

If your feeding station really works and you have lots of friends returning every day, please watch out for one thing. Cats and dogs soon find out about places where birds feed. Nothing makes us feel worse than to see a bird of whom we are especially fond disappear down the throat of a neighbor's cat. Dogs and cats like to get up higher than feeding birds and then pounce upon them. Place your shelf and feeding boxes far from higher places from which these animals can make one bound down upon them. It is a good idea, also, to place a large mesh wire screen around the suet to keep the cats from stealina it.

If you follow the above instruc-

should not have many different kinds of birds making your home bright and happy with their cheery calls and busy comings and goings. If you are successful in this and come back to Yosemite some day, stop one of the ranger-naturalists and tell him of your experiences. I know that he will be more than pleased to make further suggestions

tions, I see no reason why you We hope to write other articles especially for you young people. If you who are reading this right now have a question which you would like an swered by a ranger-naturalist, pleasedrop us a card or write a letter. Who knows, we may answer your veryown question and mention you name while doing so.

CONSERVATION QUOTES

BY

Newton B. Drury
Director, 1940-1951
National Park Service

How to live up to its trusteeship is ever the question before the National Par Service. It recognizes a duty, not only to protect but to make the parks available the people for whom it is trustee, a duty to make sure that Americans know an understand this great heritage and the threats that menace it. For only thus can use assure the perpetuation of the great places in America.—

It is no longer a question of whether this great United States can afford dedicate a portion of its land to such (NPS) purposes, but rather one of whether not the eighty-five hundredths of one percent of the land area of the United State contained within the National Park System, together with the areas under oth Federal and State agencies, are adequate to protect that portion of the Nation heritage which should logically be devoted to parks and recreation.—

Our primary contribution to national defense lies in the fact that the graneas of the National Park System inspire in the people a pride of country and serin a direct way to crystallize a love of its institutions. In short, our national shrivank among the first of the irreplaceable values that we must defend, for they America just as are the people who live around them. Someone has said, in speak of national parks and historic sites, that men will die gladly for their country; a there devolves upon us a singular obligation to preserve a country worth dying for.

NOTES FROM MY TUOLUMNE JOURNAL

William L. Neely, Ranger-Naturalist

Jnusually hot today. We were ming back from a botanical saunt Carl Sharsmith and I, down the bill Fork. We left the trail to return camp by the cooler meadows, ssing bogs and glades, Carl setting a pace that only an Indian could be up with. The stream had once ade an ox-bow here, but it was now wered with sedge.

Suddenly he stopped, "Ah, here it "And he pressed the meadow ass to one side, revealing a sedge tich looked like all other sedges, een and stiff, and he looked at it the his glass. "Carex buxbaumii" said significantly.

What I marvelled at is not the dge, even though not too common re, but at another example of what all the "naturalist's eye". It is like a Indian's eye which can see tracks here no one else can. As the forest comes more familiar, and every ant or animal in it, one acquires a naturalist's eye, and the newmers always exclaim "How did u see that tiny thing? We would tree passed right by!"

In the beginning everything tches your eye, everything is new ad strange, or else it is all a green ur, pine trees are all pines and eadow grasses are all grass. Then nen it becomes familiar you walk ong and in the gravelly places you to the buckwheats, pussy-paws, at-hills and stonecrops; in the eadowy places the pentstemon, the onkey flowers, the gopher holes, the meadow-mouse runways . . . all here you expect them and anticitate them.

Something breaks this pattern of

the expected and it stands out as an inconsistency. Haydn used this in the Surprise Symphony, throwing in his little joke among the sweet and expected harmonies of the andante. You learn to scan as you hike along, as you scan this publication and see THESE WORDS UPON THE PAGE . . . and your eye is caught. Thus one sees the Buxbaum sedge from the other sedges.

But the naturalist has another eye, and one I think even more valuable. Sorting out the unusual from the commonplace makes a poor naturalist, the kind that is always finding rarities, the unusual, the bizarre, the two-headed fish, the deer with half an antler, the jay-bird who sings like a thrush. There is the naturalist who is inspired once more by the common-place, who turns back to the thousand grasses, back to the javs who don't sing but squawk, back to the robins doing their everyday jobs. back from looking in awe at a lodgepole pine growing with 3,000 other scrubby little lodgepole pines, and gazes at them all in wonder. He has the other naturalist's eve.

I wish to look again at pine needles and flies and robins as though they were totally new and strange. We too easily jump to assumptions when we deal with the commonplace. Up until recently everyone knew that the male robin fluffed up his feathers in display to impress his hen, to woo and win her. No one thought to watch more closely . . . the robin is too common. But an English naturalist did, and found that the robin displayed before any robin who came near, whether male or female, and that

often it was the female who was making the display, so that it was not a matter of courtship at all but of defending the territory.

Our same English ornithologist has shown that the "broken wing trick" of quails, lapwings, sandpipers and others is not an attempt to lead you afay from the nest. We startle a Spotted Sandpiper during nesting season by the river and she flies a little ways off then flops on the ground, hobbling and limping and dragging a wing, going in circles, anything, apparently, to draw your attention away from that precious nest. You follow, she leads you on, until at a safe distance from the nest she takes flight.

However, this behaviour, though probably a protection to the nest, has been shown due to something else. To find the answer one must study commonplace birds for similar actions but on a less-developed scale.

We learn that what actually happens is that the bird is torn between two very strong compulsions, the urge to flee and be safe and the urge to stay and protect the eggs or the young. This indecision is a torment. One sees it with people too, like the little boy with a grubby nickel unable to decide between two candy bars, going back and forth torn by indecision. With the quail or sand-

piper it amounts to near disorganization, so that she flutters helplessly unable to fly away or return to the nest... until the danger passes and one urge drowns another.

So we must look again at natur in wonderment. The true naturalit is forever spellbound before lift whether in a grass blade or a hawkwing. Or as Thoreau said:

"The very sod is replete wit mechanism far finer than that of watch, and yet it is cast under or feet to be trampled on. The process that goes on in the sod and the dark about the minute fibres of the grass-sthe chemistry and the mechanics-before a single green blade can appear above the withered herbage, it could be adequately describes would supplant all other reveltions."

Yosemite is not a Barnum ar Bailey Show where one must see out and obsrve the oddities. After long immersion in a Tuolumne summer one begins to be aware of a third eye which pierces boundaries ar forms, no longer distinguishes a pin needle from a picket pin, but sees all of them that same common fierce surge of life, whether predator prey, that same untamed will to live before which the naturalist is alwardin awe.

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